

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A communication device for communicating via a network to provide a service to another communication device on the network, the communication device comprising:

a main processing unit operable to process a main service to be provided to the other communication device;

a communication processing unit operable to transmit and receive request information and response information corresponding to the request information with the other communication device via the network; and

a power supply unit operable to stop supplying power to said main processing unit while in a state of being able to supply the power again and operable to supply the power to said communication processing unit,

wherein said communication processing unit comprises:

a memory operable to store information required to create an alive packet which is transmitted periodically at a predetermined time and which indicates that the communication device is in a state of being able to provide the service, the required information including address information of the communication device, identification information of the communication device, and service information for the service provided by said main processing unit;

an alive packet transmitting unit operable to (i) read out, from said memory, at least the address information of the communication device and the service information, (ii) create the alive packet including the read out address information and service information, and (iii) transmit the created an alive packet periodically at a predetermined time, the alive packet indicating that the communication device is in a state of being able to provide the service and including at least address information of the communication device;

a response possibility determining unit operable to determine whether or not said communication processing unit is individually able to respond to the request information received from the other communication device which has received the alive packet;

a response unit operable to create the response information and to transmit the response information to the other communication device, when the determination indicates that the

response is possible; and

a power supply controlling unit operable to start said main processing unit, to control said power supply unit, and to supply the power to said main processing unit, when the determination indicates that the response is not possible,

wherein said alive packet transmitting unit creates and transmits the alive packet while said main processing unit is in a condition of not yet having power to provide a main service.

2. **(Previously Presented)** The communication device according to claim 1,

wherein said response unit is operable to transmit the received request information to said main processing unit when the determination indicates that the response is not possible, and

said main processing unit is operable to perform the processing of responding to the request information that has been transmitted.

3. **(Previously Presented)** The communication device according to claim 2,

wherein, when said main processing unit completes the processing of responding to the request information that has been transmitted, said main processing unit is operable to control said power supply unit to stop supplying the power to said main processing unit.

4. **(Original)** The communication device according to claim 1,

wherein said response possibility determining unit is operable to determine that the response is not possible when the received request information is:

(1) a control request which requires control for another communication device to receive the service provided by said communication device; or

(2) a status inquiry request which inquires about a status of a service of said communication device.

5. **(Original)** The communication device according to claim 1,

wherein said power supply controlling unit is operable to control said power supply unit to stop supplying the power to said main processing unit when the request information determined not to be possible to respond is not received for a predetermined period.

6. **(Previously Presented)** The communication device according to claim 1, wherein the communication processing unit further comprises

an address management unit operable to store information indicating an address of the communication device and a term of validity of the address, and, when a period until expiration of the term of validity turns into predetermined time, to start said main processing unit via said power supply controlling unit to supply the power to said main processing unit, and to cause said main processing unit to execute an update processing of the address.

7. **(Previously Presented)** The communication device according to claim 1,

wherein said power supply unit is configured as one power supply unit including a main-power supply unit operable to supply the power to said main processing unit and a communication power supply unit operable to supply the power to said communication processing unit, and

said power supply control unit is operable to control the power supply to said main processing unit in accordance with a direction from said communication processing unit or said main processing unit.

8. **(Original)** The communication device according to claim 1, wherein said power supply unit includes:

a main-power supply unit operable to supply the power to the main processing unit; and
a communication power supply unit operable to supply the power to said communication processing unit,

wherein said power supply controlling unit is operable to control the power supply to said main processing unit by controlling said main-power supply unit in accordance with a direction from said communication processing unit or said main processing unit.

9. **(Original)** The communication device according to claim 1,

wherein said response possibility determining unit is operable to determine the possibility of response by said communication processing unit based on a port number or URL included in the received request information.

10. **(Previously Presented)** The communication device according to claim 1,
wherein said response possibility determining unit is operable to determine that the response is possible when the received request information is:

(1) a discovery request inquiring with the other communication device whether the communication device is present,

(2) an acquisition request of description information, indicating at least one of a type, a name, an ID, and the provided service of the communication device; or

(3) both (1) and (2).

11. **(Canceled)**

12. **(Previously Presented)** The communication device according to claim 1, wherein the communication processing unit further includes

an address management unit operable to store information indicating an address of the communication device and a term of validity of the address, and, when the period until expiration of the term of validity has reached a predetermined time, performs update processing of the address.

13. **(Currently Amended)** A communication method for a communication device of communicating via a network to provide a service to another communication device on the network, the communication method comprising:

a main processing step of processing a main service provided to the other communication device;

a communication processing step of transmitting and receiving request information and response information corresponding to the request information with the other communication device via the network; and

a power supply step of stopping supplying power for performing said main processing step while in a state of being able to supply the power again, and supplying the power for performing said communication processing step,

wherein said communication processing step includes:

storing, in a memory, information required to create an alive packet which is transmitted

periodically at a predetermined time and which indicates that the communication device is in a state of being able to provide the service, the required information including address information of the communication device, identification information of the communication device, and service information for the service provided by said main processing step;

reading out, from the memory, at least the address information of the communication device and the service information, creating the alive packet including the read out address information and service information, and transmitting an ~~the created alive packet periodically at a predetermined time, the alive packet indicating that the communication device is in a state of being able to provide the service and including at least address information of the communication device;~~

a response possibility determination step of determining whether or not it is possible, in said communication processing step, to respond to the request information received from the other communication device which has received the alive packet;

a response step of creating the response information and transmitting to the other communication device, when the determination indicates that the response is possible; and

a power supply control step of starting said main processing step, controlling said power supply step, and supplying the power to said main processing step, when the determination indicates that the response is not possible,

wherein said communication processing step of creating and transmitting the alive packet is performed while said main processing step is in a condition of not yet having power to provide a main service.

14. (Currently Amended) A semiconductor device into which a communication device is integrated as a chip, the communication device being for communicating via a network to provide a service for other communication devices on the network, the semiconductor device comprising:

a main processing unit operable to process a main service provided to the other communication device;

a communication processing unit operable to transmit and receive request information and response information corresponding to the response information with the other communication device via the network; and

a power supply unit operable to stop supplying power to said main processing unit while in a state of being able to supply the power again, and operable to supply the power to said communication processing unit,

wherein said communication processing unit includes:

a memory operable to store information required to create an alive packet which is transmitted periodically at a predetermined time and which indicates that the communication device is in a state of being able to provide the service, the required information including address information of the communication device, identification information of the communication device, and service information for the service provided by said main processing unit;

an alive packet transmitting unit operable to (i) read out, from said memory, at least the address information of the communication device and the service information. (ii) create the alive packet including the read out address information and service information, and (iii) transmit ~~an the created alive packet periodically at a predetermined time, the alive packet indicating that the communication device is in a state of being able to provide the service and including at least address information of the communication device;~~

a response possibility determining unit operable to determine whether or not said communication processing unit is individually able to respond to the request information received from the other communication device which has received the alive packet;

a response unit operable to create the response information and transmit to the other communication device, when the determination indicates that the response is possible; and

a power supply controlling unit operable to start said main processing unit, control said power supply unit, and supply the power to said main processing unit, when the determination indicates that the response is not possible,

wherein said alive packet transmitting unit creates and transmits the alive packet while said main processing unit is in a condition of not yet having power to provide a main service.